

What is claimed is:

1. A cooling device utilizing liquid coolant, comprising:  
a tank comprising a plurality of parallel inner walls therein thereby defining a through channel for passage of the liquid coolant, a plurality of pins being disposed in the channel;  
an inlet and an outlet disposed at opposite ends of the channel for entry and exiting of the liquid coolant into and from the tank; and  
a cover hermetically sealing the tank.
2. The cooling device of claim 1, wherein the tank comprises a base, and two pairs of sidewalls perpendicularly extending from the base and surrounding the inner walls.
3. The cooling device of claim 2, wherein the inlet and the outlet are disposed at opposite sidewalls of the tank.
4. The cooling device of claim 2, wherein the inner walls perpendicularly extend from the base, and the inner walls and the sidewalls are substantially equal in height.
5. The cooling device of claim 2, wherein the inner walls extend alternately from one of the sidewalls and an opposite sidewall.
6. The cooling device of claim 5, wherein the inner walls are substantially uniformly spaced apart.
7. The cooling device of claim 6, wherein a distance between a free end of each of the inner walls and a corresponding opposite sidewall is substantially equal to a distance between any two adjacent inner walls.

8. The cooling device of claim 2, wherein the pins extend perpendicularly upwardly from the base.
9. The cooling device of claim 8, wherein a height of the pins is substantially equal to a height of the sidewalls.
10. The cooling device of claim 1, wherein each of the pins is cylindrical.
11. A cooling device comprising:
  - a tank including a base adapted to be in contact with a heat source;
  - a cover sealing the tank opposite to said base;
  - a horizontal sinuous channel defined in the tank;
  - working liquid filled in the channel; and
  - a plurality of small protrusions disposed in and along at least a portion of the channel for not only increasing heat transfer area between the working liquid and the tank but also resulting in turbulence for enhancement of heat exchange between the working liquid and the tank.
12. The cooling device of claim 11, wherein said tank includes opposite inlet and outlet respectively communicatively connected to two opposite ends of the channel.
13. The cooling device of claim 12, wherein the outlet and the inlet are substantially located on a periphery of the tank while the small protrusions are located around a center portion of the tank.

14. The cooling device of claim 11, wherein said cover is not integrally formed with the tank.
15. The cooling device of claim 11, wherein said small protrusions extend from the base.
16. The cooling device of claim 11, wherein said tank includes a plurality of inner walls forming said sinuous channel.
17. The cooling device of claim 11, wherein said small protrusions are pins.